

DETAILED ACTION

Status of Application

1. The office action of 03/31/09 is vacated and replaced with the following office action.
2. In view of the appeal brief filed on 12/09/08, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615.

3. Claims 1-33 are included in the prosecution.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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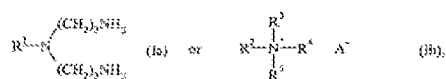
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou et al. (WO 00/03692).

The claimed invention is a process of utilizing a disinfectant composition comprising:

a) an amine and/or quaternary ammonium salt of the general formula:



where R¹ is C₆₋₁₆ alkyl,

R² is benzyl or C₆₋₁₆ alkyl,

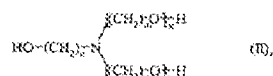
R³ is C₁₋₁₆ alkyl or -[(CH₂)_n-O]_mHⁿ where n = 1-20,

R⁴ and R⁵ independently of one another are C₁₋₆ alkyl,

R⁵ is hydrogen or unsubstituted or substituted phenyl,

and A⁻ is a monovalent anion or one equivalent of a polyvalent anion of an inorganic or organic acid, and

b) at least one alkanolamine of the general formula:



where n and, if present, m and o independently of one another have the value 2 or 3, and x and y independently of one another have the value 0 or 1, or a corresponding salt; in the mass ratio I:II of 20:1 to 1:20, as a virucidal agent.

Zhou teaches a method of decontaminating a surface by using a composition comprising a quaternary ammonium compound and water (Abstract). Quaternary ammonium compounds including C₁₂₋₁₆ alkyl dimethylbenzyl ammonium chloride, C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride (Page 8, line 42 to Page 9, line 15). Typical amounts of the quaternary ammonium compound range from about 0.01%-5% (Page 9, lines 25-30). Alkanolamines (including triethanolamine) are disclosed as components that comprise 0.01% to 5% of the composition (Page 16, lines 23-36). The method for

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decontaminating a surface containing microorganisms by contacting the surface with the dispensable composition is also disclosed by Zhou (Page 2, line 45 to Page 3, line 1). The surfaces that may be treated include bathroom surfaces, implements, etc., and include surfaces that harbor microorganisms, including viruses (Page 3, line 40 to Page 3, line 21). The composition can also be used as a cleaner and soil remover (Page 4, lines 29-32). "Additional adjuncts in small amounts such as buffers, fragrances, dyes and the like can be included to provide desirable attributes of such adjuncts" (Page 5, lines 4-5). Table III illustrates the virucidal efficacy of the composition when applied to a test surface. The complete inactivation of poliovirus type I is demonstrated (Page 20, Table III and Page 19, lines 38-40).

Regarding instant claim 1, the limitation of the process of utilizing a disinfectant composition is anticipated by the method of decontaminating a surface by applying the composition that is an effective virucide, as disclosed by Zhou (Page 2, line 45 to Page 3, line 1 and Table III). The limitation of a quaternary ammonium salt of the general formula disclosed in claim 1 is anticipated by the C₁₂₋₁₆ alkyl dimethylbenzyl ammonium chloride, C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride taught by Zhou (Page 9, lines 25-30). The limitation of "at least one alkanolamine" of the general formula disclosed in claim 1 is anticipated by the triethanolamine disclosed by Zhou (Page 16, lines 23-36). The limitation of the mass ratio of I:II (or the mass ratio of the quaternary ammonium compound: the alkanolamine) of 20:1 to 1:20 is anticipated by the ratio of quaternary (ammonium compound: alkanolamine) that ranges from (0.01%-5%): (0.01%-5%), as taught by Zhou (Page 9, lines 25-30 and Page 16, lines 23-36). The limitation of the

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process of utilizing a disinfectant composition as a virucidal agent is anticipated by the application of the composition to a surface and the complete inactivation of poliovirus type I, as disclosed by Zhou (Page 20, Table III and Page 19, lines 38-40).

Regarding instant claim 2, the limitation of the quaternary ammonium salt is anticipated by the C₈/C₁₀ alkyl dimethyl ammonium chloride, di-C₈ alkyl dimethyl ammonium chloride and di-C₁₀ alkyl dimethyl ammonium chloride, as taught by Zhou (Page 9, lines 25-30).

Regarding instant claims 3 and 12, the limitation of the alkanolamine is anticipated by the triethanolamine taught by Zhou (Page 16, lines 23-36).

Regarding instant claims 4 and 13-15, the limitation of the mass ratio of I:II that is between 1:5 and 5:1 is anticipated by the ratio of quaternary (ammonium compound: alkanolamine that ranges from (0.01%-5%): (0.01%-5%), as taught by Zhou (Page 9, lines 25-30 and Page 16, lines 23-36).

Regarding instant claims 5 and 16-18, the limitation of water as a solvent is anticipated by the water disclosed by Zhou (Abstract).

Regarding instant claims 6 and 19-20, the limitation of the auxiliaries is anticipated by the additional adjuncts in small amounts such as buffers, fragrances, and dyes that can be included, as taught by Zhou (Page 5, lines 4-5).

Regarding instant claims 7-10 and 21-28, the limitation of surface disinfection, instrument disinfection, and laundry disinfection is anticipated by the treatment of bathroom surfaces, implements, and the use of the composition as a cleaner and soil remover, as taught by Zhou (Page 4, lines 29-32).

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Regarding instant claims 11 and 29-33, the limitation of the process wherein the virucidal agent of claim 1 is utilized against parvoviruses, picornaviruses or polioviruses is anticipated by the application of the composition to a surface and the complete inactivation of poliovirus type I, as disclosed by Zhou (Page 20, Table III and Page 19, lines 38-40).

Conclusion

6. Due to the new grounds of rejection, this action is made non-final.
7. No claims are allowed.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Aradhana Sasan/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615